IMMUNOLOGY

CONTENTS

Volume 101 Number 1 September 2000

Review articles

1 *H. D. Brightbill & R. L. Modlin:* Toll-like receptors: molecular mechanisms of the mammalian immune response

11 *D. Diaz-Sanchez:* Pollution and the immune response: atopic diseases – are we too dirty or too clean?

Original articles

19 *M. S. Hossain, H. Takimoto, T. Ninomiya, H. Yoshida, K. Kishihara, G. Matsuzaki, G. Kimura & K. Nomoto:* Characterization of $CD4^-$ $CD8^-$ $CD3^+$ T-cell receptor-$\alpha\beta^+$ T cells in murine cytomegalovirus infection

30 *Y. Sotsios, P. J. Blair, J. Westwick & S. G. Ward:* Disparate effects of phorbol esters, CD3 and the costimulatory receptors CD2 and CD28 on RANTES secretion by human T lymphocytes

38 *M. Kawaguchi-Miyashita, S. Shimada, Y. Matsuoka, M. Ohwaki & M. Nanno:* Activation of T-cell receptor-$\gamma\delta^+$ cells in the intestinal epithelia of KN6 transgenic mice

46 *G. B. Lipford, S. Bendigs, K. Heeg & H. Wagner:* Poly-guanosine motifs costimulate antigen-reactive CD8 T cells while bacterial CpG-DNA affect T-cell activation via antigen-presenting cell-derived cyokines

53 *R. Matasić, A. B. Dietz & S. Vuk-Pavlović:* Cyclooxygenase-independent inhibition of dendritic cell maturation by aspirin

61 *J. Jiu, M. Chen & X. Wang:* Calcitonin gene-related peptide inhibits lipopolysaccharide-induced interleukin-12 release from mouse peritoneal macrophages, mediated by the cAMP pathway

68 *S. Aiba, H. Manome, Y. Yoshino & H. Tagami: In vitro* treatment of human transforming growth factor-β_1-treated monocyte-derived dendritic cells with haptens can induce the phenotypic and functional changes similar to epidermal Langerhans cells in the initiation phase of allergic contact sensitivity reaction

76 *Y. Nakagawa, T. Takeshita, J. A. Berzofsky & H. Takahashi:* Analysis of the mechanism for extracellular processing in the presentation of human immunodeficiency virus-1 envelope protein-derived peptide to epitope-specific cytotoxic T lymphocytes

83 *C. Alvarez-Dominguez, E. Carrasco-Marín, P. López-Mato & F. Leyva-Cobián:* The contribution of both oxygen and nitrogen intermediates to the intracellular killing mechanisms of C1q-opsonized *Listeria monocytogenes* by the macrophage-like IC-21 cell line

90 *D. A. Schmitt, J. P. Walterscheid & S. E. Ullrich:* Reversal of ultraviolet radiation-induced immune suppression by recombinant interleukin-12: suppression of cytokine production

97 *S. Yamashiro, H. Kamohara & T. Yoshimura:* Alteration in the responsiveness to tumour necrosis factor-α is crucial for maximal expression of monocyte chemoattractant protein-1 in human neutrophils

104 *W. G. Brodbeck, L. Kuttner-Kondo, C. Mold & M. E. Medof:* Structure/function studies of human decay-accelerating factor

112 *P. Eibensteiner, S. Spitzauer, P. Steinberger, D. Kraft & R. Valenta:* Immunoglobulin E antibodies of atopic individuals exhibit a broad usage of V_H-gene families

120 *J. N. Flynn, L. Hanlon & O. Jarrett:* Feline leukaemia virus: protective immunity is mediated by virus-specific cytotoxic lymphocytes

126 *M. B. Parr & E. L. Parr:* Immunity to vaginal herpes simplex virus-2 infection in B-cell knockout mice

132 *S. I. Mannering, Y. Zhan, B. Gilbertson, G. J. Lieschke & C. Cheers:* T lymphocytes from granulocyte colony-stimulating $factor^{-/-}$ mice produce large quantities of interferon-γ in a chronic infection model

140 *C. T. Tiemessen, B. Kilroe & D. J. Martin:* Interleukin-8 fails to induce human immunodeficiency virus-1 expression in chronically infected promonocytic U1 cells but differentially modulates induction by proinflammatory cytokines

147 *A. Panunto-Castelo, I. C. Almeida, J. C. Rosa, L. J. Greene & M.-C. Roque-Barreria:* The Rubino test for leprosy is a β_2-glycoprotein 1-dependent antiphospholipid reaction

154 *J. A. Niedleman, M. Vajdy, M. Ugozzoli, G. Ott & D. O'Hagan:* Genetically detoxified mutants of heat-labile enterotoxin from *Escherichia coli* are effective adjuvants for induction of cytotoxic T-cell responses against HIV-1 gag-p55

161 *K. Thoreux, R. L. Owen & D. L. Schmucker:* Intestinal lymphocyte number, migration and antibody secretion in young and old rats

Vol 101, No 2, October 2000

Review article

169 *D. M. Sansom:* CD28, CTLA-4 and their ligands: who does what and to whom?

Original articles

178 *E. Kenny, D. Mason, A. Pombo & F. Ramírez:* Phenotypic analysis of peripheral $CD4^+$ $CD8^+$ T cells in the rat

185 *A. I. Roberts, R. S. Blumberg, A. D. Christ, R. E. Brolin & E. C. Ebert:* Staphylococcal enterotoxin B induces potent cytotoxic activity by intraepithelial lymphocytes

191 *K. Kapasi, S. E. Albert, S.-M. Yie, N. Zavazava & C. L. Librach:* HLA-G has a concentration-dependent effect on the generation of an allo-CTL response

201 *A. Gagro, N. McCloskey, A. Challa, M. Holder, G. Grafton, J. D. Pound & J. Gordon:* CD5-positive and CD5-negative human B cells converge to an indistinguishable population on signalling through B-cell receptors and CD40

210 *K. Dahlenborg, J. D. Pound, J. Gordon, C. A. K. Borrebaeck & R. Carlsson:* Signals sustaining human immunoglobulin V gene hypermutation in isolated germinal centre B cells
218 *N. de Groot, P. van Kuik-Romeijn, S. H. Lee & H. A. de Boer:* Increased immunoglobulin A levels in milk by over-expressing the murine polymeric immunoglobulin receptor gene in the mammary gland epithelial cells of transgenic mice
225 *C. Teh, Y. Le, S. H. Lee & J. Lu:* M-ficolin is expressed on monocytes and is a lectin binding to *N*-acetyl-D-glucosamine and mediates monocyte adhesion and phagocytosis of *Escherichia coli*
233 *W.-C. Lee, S. Qian, Y. Wan, W. Li, Z. Xing, J. Gauldie, J. J. Fung, A. W. Thomson & L. Lu:* Contrasting effects of myeloid dendritic cells transduced with an adenoviral vector encoding interleukin-10 on organ allograft and tumour rejection
242 *A. Elbe-Bürger, A. M. Mommaas, E. E. Prieschl, E. Fiebiger, T. Baumkruker & G. Stingl:* Major histocompatibility complex class II$^-$ fetal skin dendritic cells are potent accessory cells of polyclonal T-cell responses
254 *A. Bergamini, F. Bolacchi, B. Bongiovanni, M. Cepparulo, L. Ventura, M. Capozzi, C. Sarrecchia & G. Rocchi:* Granulocyte–macrophage colony-stimulating factor regulates cytokine production in cultured macrophages through CD14-dependent and -independent mechanisms
262 *T. Pedron, R. Girard, B. Jeyaretnam, R. W. Carlson & R. Chaby:* The lipid A region of lipopolysaccharides from Rhizobiaceae activates bone marrow granulocytes from lipopolysaccharide-hyporesponsive C3H/HeJ and C57BL/10ScCr mice
271 *M. C. de Assis, A. O. da Costa, T. C. Barja-Fidalgo & M. C. Plotkowski:* Human endothelial cells are activated by interferon-γ plus tumour necrosis factor-α to kill intracellular *Pseudomonas aeruginosa*
279 *L. Dráberová, H. Černá, H. Brodská, M. Boubelík, S. M. Watt, C. P. Stanners & P. Dráber:* Soluble isoforms of CEACAM1 containing the A2 domain: increased serum levels in patients with obstructive jaundice and differences in 3-fucosyl-*N*-acetyl-lactosamine moiety

288 Erratum

Vol 101, No 3, November 2000

Review articles
289 *A. Noble:* Molecular signals and genetic reprogramming in peripheral T-cell differentiation
300 *T. Akaike & H. Maeda:* Nitric oxide and virus infection

Original articles
309 *A. Asada, Y. Zhao, H. Komano, T. Kuwata, M. Mukai, K. Fujita, Y. Tozawa, R. Iseki, H. Tian, K. Sato, Y. Motegi, R. Suzuki, M. Yokoyama & M. Iwata:* The calcium-independent protein kinase C participates in an early process of CD3/CD28-mediated induction of thymocyte apoptosis
316 *J. Gong, V. Apostolopoulos, D. Chen, H. Chen, S. Koido, S. J. Gendler, I. F. McKenzie & D. Kufe:* Selection and characterization of MUC1-specific CD8$^+$ T cells from MUC1 transgenic mice immunized with dendritic-carcinoma fusion cells
325 *A. L. Smith & A. C. Hayday:* An αβ T-cell-independent immunoprotective response towards gut coccidia supported by γδ cells
333 *W. R. Waters, R. Hontecillas, R. E. Sacco, F. A. Zuckermann, K. R. Harkins, J. Bassaganya-Riera & M. J. Wannemuehler:* Antigen-specific proliferation of porcine CD8αα cells to an extracellular bacterial pathogen
342 *H. Floyd, L. Nitschke & P. R. Crocker:* A novel subset of murine B cells that expresses unmasked forms of CD22 is enriched in the bone marrow: implications for B-cell homing to the bone marrow
348 *Y. Zhao, H. Rabbani, A. Shimizu & L. Hammarström:* Mapping of the chicken immunoglobulin heavy-chain constant region gene locus reveals an inverted α gene upstream of a condensed υ gene
354 *I. N. Farstad, H. Carlsen, H. C. Morton & P. Brandtzaeg:* Immunoglobulin A cell distribution in the human small intestine: phenotypic and functional characteristics
364 *A. Ménoret, R. Y. Chandawarkar & P. K. Srivastava:* Natural autoantibodies against heat-shock proteins hsp70 and gp96: implications for immunotherapy using heat-shock proteins
371 *E. R. Elvazova, J. M. McDonnell, B. J. Sutton & N. A. Staines:* Specificity and binding kinetics of murine lupus anti-DNA monoclonal antibodies implicate different stimuli for their production
378 *T. Fischer, M. Büttner & H.-J. Rziha:* T helper 1-type cytokine transcription in peripheral blood mononuclear cells of pseudorabies virus (*Suid herpesvirus 1*)-primed swine indicates efficient immunization
388 *T. A. Braciak, W. S. Gallichan, F. L. Graham, C. D. Richards, A. J. Ramsay, K. L. Rosenthal & J. Gauldie:* Recombinant adenovirus vectors expressing interleukin-5 and -6 specifically enhance mucosal immunoglobin A responses in the lung
397 *J.-S. Yang, L.-Y. Xu, Y.-M. Huang, P. H. van der Meide, H. Link & B.-G. Xiao:* Adherent dendritic cells expressing high levels of interleukin-10 and low levels of interleukin-12 induce antigen-specific tolerance to experimental autoimmune encephalomyelitis
404 *V. Holáň, A. Zajicová, M. Krulová, J. Plšková, J. Frič & M. Filipec:* Induction of specific transplantation immunity by oral immunization with allogeneic cells
412 *M. Nagata, H. Yamamoto, M. Shibasaki, Y. Sakamoto & H. Matsuo:* Hydrogen peroxide augments eosinophil adhesion via β_2 integrin
419 *J. R. Velazquez, P. Lacy, S. Mahmudi-Azer, B. Bablitz, C. D. Milne, J. A. Denburg & R. Moqbel:* Interleukin-4 and RANTES expression in maturing eosinophils derived from human cord blood CD34$^+$ progenitors
426 *I. J. Crane, C. A. Wallace, S. McKillop-Smith & J. V. Forrester:* Control of chemokine production at the blood–retina barrier

Vol 101, No 4, December 2000

Review article
435 *I.-L. Mårtensson & R. Ceredig:* Role of the surrogate light chain and the pre-B-cell receptor in mouse B-cell development

Original articles
442 *R. J. Dearman & I. Kimber:* Role of CD4$^+$ T helper 2-type cells in cutaneous inflammatory responses induced by fluorescein isothiocyanate

452 *S. M. Rhind, J. Hopkins & E. S. Grant:* Differential expression of ovine CD1

458 *H. Wang & D. A. Chow:* Natural antibody-induced intracellular signalling and growth control in C3H 10T½ fibroblast variants

467 *W. E. Walsh Jr, B. E. Anderson, D. Ivancic, Z. Zhang, J. P. Piccini, T. G. Rodgers, W. Pao & J. P. Fryer:* Distribution of, and immune response to, chicken anti-αGal immunoglobulin Y antibodies in wild-type and αGal knockout mice

474 *C. P. Ediriwickrema, S. L. Tonkonogy & B. Hammerberg:* Natural killer cell-dependent immunoglobulin G2a anti-bovine serum albumin (BSA) response elicited by high molecular weight dextran–BSA conjugates associated with dextran-mediated macrophage–natural killer interaction

484 *Y. Dang, J. Beckers, C.-R. Wang & K. D. Heyborne:* Natural killer 1.1^+ αβ T cells in the periimplantation uterus

492 *K. Haverson, S. Singha, C. R. Stokes & M. Bailey:* Professional and non-professional antigen-presenting cells in the porcine small intestine

501 *J. Zhang-Hoover, A. Sutton, N. van Rooijen & J. Stein-Streilein:* A critical role for alveolar macrophages in elicitation of pulmonary immune fibrosis

512 *R. P. Ciavarra, A. R. Greene, D. R. Horeth, K. Buhrer, N. van Rooijen & B. Tedeschi:* Antigen processing of vesicular stomatitis virus *in situ*. Interdigitating dendritic cells present viral antigens independent of marginal dendritic cells but fail to prime $CD4^+$ and $CD8^+$ T cells

521 *M. Radsak, C. Iking-Konert, S. Stegmaier, K. Andrassy & G. M. Hänsch:* Polymorphonuclear neutrophils as accessory cells for T-cell activation: major histocompatability complex class II restricted antigen-dependent induction of T-cell proliferation

531 *K. Hosoi, S. Matsuura, K. Tsumura, W. Wei, M. N. Parvin, J. Tada, T. Akamatsu, N. Kanamori & K. Suzuki:* Expression of kininogens in the connective tissue-type mast cells of the rat

541 *S. Mogi, J. Sakurai, T. Kohsaka, S. Enomoto, H. Yagita, K. Okumura & M. Azuma:* Tumour rejection by gene transfer of 4-1BB ligand into a $CD80^+$ murine squamous cell carcinoma and the requirements of co-stimulatory molecules on tumour and host cells

548 *F. Triponez, J. Oberholzer, P. Morel, C. Toso, D. Yu, N. Cretin, L. Buhler, P. Majno, G. Mentha & J. Lou:* Xenogeneic islet re-transplantation in mice triggers an accelerated, species-specific rejection

555 *R. Arnon, R. Tarrab-Hazdai & M. Steward:* A mimotope peptide-based vaccine against *Schistosoma mansoni*: synthesis and characterization

563 *K. S. S. Fernandes, A. L. J. Coelho, L. M. Lopes Bezerra & C. Barja-Fidalgo:* Virulence of *Sporothrix schenckii* conidia and yeast cells, and their susceptibility to nitric oxide

570 *L. Zhou, Y. Yoshimura, Y.-Y. Huang, R. Suzuki, M. Yokoyama, M. Okabe & M. Shimamura:* Two independent pathways of maternal cell transmission to offspring: through placenta during pregnancy and by breast-feeding after birth

581 Erratum

583 **Author and Subject Indexes for Volume 101**